

Information on Malaria



What is malaria?

Malaria is a serious and sometimes fatal disease caused by a parasite. Patients with malaria typically are very sick with high fevers, shaking chills, and flu-like illness. Four kinds of malaria parasites can infect humans: *Plasmodium falciparum*, *P. vivax*, *P. ovale*, and *P. malariae*.

Is malaria a common disease?

Yes. The World Health Organization estimates that each year 300-500 million cases of malaria occur and more than 1 million people die of malaria. About 1,300 cases of malaria are diagnosed in the United States each year.

Is malaria a serious disease?

Yes. Malaria is a leading cause of death and disease worldwide, especially in developing countries. Most deaths occur in young children. In Africa, a child dies from malaria every 30 seconds.

What are the signs and symptoms of malaria?

Symptoms of malaria include fever and flu-like illness, including shaking chills, headache, muscle aches, and tiredness. Nausea, vomiting, and diarrhea may also occur. Infection with one type of malaria, *Plasmodium falciparum*, if not promptly treated, may cause kidney failure, seizures, mental confusion, coma, and death.

How soon will a person feel sick after being bitten by an infected mosquito?

For most people, symptoms begin 10 days to 4 weeks after infection, although a person may feel ill as early as 7 days or as late as 1 year later.

How do I know if I have malaria?

Malaria can very rapidly become a severe and life-threatening disease. The surest way for you and your health-care provider to know whether you have malaria is to have a diagnostic test where a drop of your blood is examined under the microscope for the presence of malaria parasites.

When should malaria be treated?

The disease should be treated early in its course, before it becomes severe and poses a risk to the patient's life. Several good antimalarial drugs are available, and should be administered early on. The most important step is to think about malaria, so that the disease is diagnosed and treated in time.

How do I find out what is the best drug to take against malaria?

Many effective antimalarial drugs are available. Your health care provider and you will decide on the best drug for you based on your travel itinerary, medical history, age, drug allergies, pregnancy status, and other health factors.

Can children also take malaria pills?

Yes, but not all types of malaria pills. Children of any age can get malaria and any child traveling to a malaria-risk area should be on an antimalarial drug.

Isn't there a malaria vaccine?

There is currently no malaria vaccine approved for human use.

If I get malaria, will I have it for the rest of my life?

No, not necessarily. Malaria can be treated. If the right drugs are used, people who have malaria can be cured and all the malaria parasites can be eliminated. However, the disease can persist if it is left untreated or if it is treated with the wrong drug. Two types (species) of parasites, *Plasmodium vivax* and *P. ovale*, have dormant liver stages that can remain silent for years. Left untreated, these liver stages may reactivate and cause malaria attacks ("relapses") after months or years without symptoms. Patients diagnosed with *P. vivax* or *P. ovale* are often given a second drug to help prevent these relapses. Another type (species), *P. malariae*, if left untreated, has been known to persist in the blood of some persons for several decades.

But in general, if you are correctly treated for malaria, the parasites are eliminated and you are no longer infected with malaria.

Where does malaria occur?

Malaria typically is found in warmer regions of the world -- in tropical and subtropical countries. Malaria occurs in over 100 countries and territories.

How is malaria transmitted?

Usually, people get malaria by being bitten by an infected female *Anopheles* mosquito. Because the malaria parasite is found in red blood cells, malaria can also be transmitted through blood transfusion, organ transplant, or the shared use of needles or syringes contaminated with blood. Malaria may also be transmitted from a mother to her fetus before or during delivery ("congenital" malaria).

Malaria is not transmitted from person to person like a cold or the flu. You cannot get malaria from casual contact with malaria-infected people.

Who is at risk for malaria?

Anyone can get malaria. Most cases occur in residents of countries with malaria transmission and travelers to those countries. In non-endemic countries, cases can occur in non-travelers as congenital malaria, introduced malaria, or transfusion malaria.

Who are the people most at risk of severe and fatal malaria?

People who are heavily exposed to the bites of mosquitoes infected with *P. falciparum* are most at risk of dying from malaria. People who have little or no immunity to malaria, such as young children and pregnant women; or travelers coming from areas with no malaria, are more likely to become severely ill and die

I will be traveling outside of the United States. What should I do to avoid getting malaria or other infectious diseases?

Some simple precautions will help protect your health while traveling. CDC's Travelers' Health provides detailed information on malaria risk by country, prevention information including recommended antimalarial drugs, and health recommendations (e.g., vaccinations) for other diseases.

Travelers leaving the United States should:

- Visit your health care provider 4-6 weeks before foreign travel for any necessary vaccinations, as well as a prescription for an antimalarial drug, if needed.
- Take your antimalarial drug exactly on schedule without missing doses.
- Wear insect repellent to prevent mosquito and other insect bites. Your insect repellent should contain DEET as its active ingredient. To prevent malaria, wear insect repellent if out of doors between dusk and dawn when the mosquito that transmits malaria is biting.
- Wear long pants and long-sleeved clothing.
- Sleep under a mosquito bed net (preferably one that has been treated with insecticide) if you are not living in screened or air-conditioned housing.

Should I buy my malaria pills in the malaria-risk country where I will be traveling?

Buying medications abroad has its risks. The drugs could be of substandard quality because of poor manufacturing practices. The drugs could contain contaminants or they could be counterfeit drugs. It would be best to purchase all the medications that you need before you leave the United States.

Can I give blood if I have been in a country where there is malaria?

In general, most travelers to an area with malaria are deferred from donating blood for 1 year after their return. Former residents of malaria-risk areas will be deferred for 3 years. Persons diagnosed with malaria cannot donate blood for 3 years after treatment, during which time they must have remained free of symptoms of malaria.

I am 4 months pregnant but want to visit a malaria-risk country for 2 weeks. Is it safe to do so?

Women who are pregnant or likely to become pregnant should avoid travel to areas with malaria risk, if possible. Malaria can increase the risk for adverse pregnancy outcomes, including prematurity, miscarriage, and stillbirth. No preventive drugs are completely effective. Please consider these risks (and other health risks as well) and discuss with your health-care provider.

Any traveler who becomes ill with a fever or flu-like illness while traveling and up to 1 year after returning home should immediately seek professional medical care. You should tell your health care provider that you have been traveling in a malaria-risk area.

Source: Center's for Disease Prevention and Control, June 20, 2006

If you have additional questions, please call your doctor or local health department.

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